

Date: Tue, 16 Mar 93 16:27:17 PST
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #331
To: Info-Hams

Info-Hams Digest Tue, 16 Mar 93 Volume 93 : Issue 331

Today's Topics:

 A few QRP related questions. (2 msgs)
 A pair of coax <-> ladder line?
 Cleaning Air Variable Caps.
 Dayton Hamvention Information
 Home Made antenna
 HTX-202 MODS ??????
 Newbie question: What is iambic?
 Repair my HW-101??
 Repeater in simplex band ?? (2 msgs)
 Washing Radios?

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Tue, 16 Mar 1993 21:26:17 GMT
From: pacbell.com!att-out!cbnewsj!k2ph@network.UCSD.EDU
Subject: A few QRP related questions.
To: info-hams@ucsd.edu

Date: 16 Mar 93 05:50:33 EST
From: usc!howland.reston.ans.net!paladin.american.edu!news.univie.ac.!!hp4at!
mcsun!sunic!psinntp!psinntp!arrl.org@network.UCSD.EDU
Subject: A few QRP related questions.

To: info-hams@ucsd.edu

In rec.radio.amateur.misc, gary@ke4zv.uucp (Gary Coffman) writes:
>For shame Chuck, Field Day isn't a *contest*, it's an emergency
>preparedness drill. At least that's the ARRL official line, so
>it operates all bands, all modes.

Sorry, Gary, but 10 MHz contacts don't count, since this is a
secondary allocation. (allocated to the fixed service on a
primary basis outside the United States an Possessions.)

But, the 18 and 24 MHz bands are exclusive amateur allocations,
so operation on these bands is encouraged.

Last year there were a number of microwave contacts in the
Northeast, even on 5.7 GHz and 10 GHz, despite difficulties with
trees.

Zack Lau KH6CP/1

Internet: zlau@arrl.org "Working" on 24 GHz SSB/CW gear
Operating Interests: 10 GHz CW/SSB/FM
US Mail: c/o ARRL Lab 80/40/20 CW
225 Main Street Station capability: QRP, 1.8 MHz to 10 GHz
Newington CT 06111 modes: CW/SSB/FM/packet
amtor/baudot
Phone (if you really have to): 203-666-1541

Date: 16 Mar 93 20:27:58 GMT
From: news.tek.com!tekig7!tekig6!royle@uunet.uu.net
Subject: A pair of coax <-> ladder line?
To: info-hams@ucsd.edu

In an earlier posting I made an incorrect statement:

> Two pieces of coax connected as you describe have twice the length of
>(lossy) center conductor and twice the impedance of a single piece,
>resulting in very nearly the same loss as a single piece of coax. At high
>UHF or microwave frequencies, the dielectric loss will become a factor and
>the two pieces of coax will be worse than a single one.

The dielectric loss (apparent at high UHF or microwave frequencies) would
be the same in both cases.

In the two-coax case, each line has $1/\sqrt{2}$ the voltage that's applied in
the single-coax case. The dielectric loss per line is proportional to V^2 ,

so each line in the two-line case has 1/2 the loss of the line in the single-line case, resulting in the same total loss.

Thanks to tomb@lsid.hp.COM for bringing this error to my attention.

I'm glad somebody's reading this stuff!

Roy Lewallen
W7EL
royle@tekig6.pen.tek.com

Date: Tue, 16 Mar 1993 19:30:40 GMT
From: gulfaero.com!ux1.cso.uiuc.edu!rtaylor@network.UCSD.EDU
Subject: Cleaning Air Variable Caps.
To: info-hams@ucsd.edu

nat@kpc.com (Natarajan Gurumoorthy) writes:

>Hello,

> I picked up some air variable caps at a flea market this weekend. The guy
>I bought it from suggested I throw them into the dish washer first. I don't have
>access to an ultrasound bath. Any ideas on cleaning and lubricating the bearings
>would be very welcome. If I am inundated with some really innovative ideas I
>will summarize and repost it.

> One of the caps I picked up is a differential cap (2 sections of the same
>size with the rotor being the common terminal to the 2 caps). Any idea why it is
>called a differential cap? I was thiking of building a transmatch with it. The
>circuit I was thiking of was the following

For balanced antennas, I like the old Harvey Wells Z=match circuit
that only had two knobs for tuning capacitors and no need for
a variable or switched inductor.

> Should plunk down good money and buy a roller inductor or should I buy a
>B&W air wound coil and tap it, or should create a tapped inductor around a
ferrite
>core (for HF bands what core material should be used)?

> Thanks in advance.

> Nat.

You can get some nice roller or tapped inductors at most large hamfests
rather cheap. A roller inductor does require a turns counting dial which
is often more exepnseive for a good one than the inductor. You also need
a chart or a very good memory.

Scrub dirty air variables of any size with a tooth brush and tooth paste. Smaller ones with q-tip and alcohol or solvent. Be sure to use a good TV tuner lubricant/cleaner on the bearings so they make good electrical contact as well as any contact fingers. K9ALD

Date: 16 Mar 1993 22:32:57 GMT
From: meaddata!dem@uunet.uu.net
Subject: Dayton Hamvention Information
To: info-hams@ucsd.edu

In article <1993Mar16.185802.6546@netnews.louisville.edu>,
harpe@netnews.louisville.edu (Mike Harpe) writes:

harpe> I'm curious. Last year after Dayton it was widely reported
harpe> that last year was the last year for Dayton at Hara Arena. Now
harpe> i'm seeing that it's still there. What's the deal?

In a recent article in the Dayton Daily News, it was reported that DARA had signed a deal with Hara to hold the Hamvention there for the next three years. I don't know where those other stories came from.

--
David Myers "You guys listen to managers (513) 865-1343
Mead Data Central much too often." Fabrication Systems
P.O. Box 933 My manager dem@meaddata.com
Dayton, Ohio 45401 2/5/93 ...!uunet!meaddata!dem

Date: Tue, 16 Mar 1993 21:08:28 GMT
From: agate!howland.reston.ans.net!wupost!csus.edu!netcom.com!mont@ames.arpa
Subject: Home Made antenna
To: info-hams@ucsd.edu

In article <randall.731991973@seashore> randall@informix.com (Randall Rhea) writes:

>an15663@anon.penet.fi writes:

>

>

>>I am so embarassed to ask this, I am posting anonymously. 8-)

>

>

>>Here is a "beginner" question for ya. I have a 2-meter rig that I
>>would like to attach a better antenna on to. just so I can listen to
>>the locals a bit better .. would it be crazy to thing I can use coax
>>(RG-58) with BNC connectors to act as a temporary antenna? One additional

>>question, I assume this would have to be a certain resistance .. so
>>would soldering a 50 ohm resistor across the end (the end not connected
>>to the radio, of course) be sufficient to allow the coax to be
>>"functional" as an antenna?

>

>Not crazy at all. You can build a sleeve dipole very easily.

And another antenna you can build that might be a tad easier is
called a Cobra (I think). It's basically the same as the sleeve
dipole but built a little different.

```

      o  <---  small loop or hook to suspend it from.
      |
      |  <---  1/4 wave center conductor only
      |          you can leave the inner insulation, just need
      |          to remove the braided shield
      |||
      |||  <---  1/4 wave coax this side of the ferrite core
      |||
      |||
      ((|||)) <--- wrap about 6 turns on a ferrite core
      |||          This prevents the RF from going any
      |||          further down the coax.
      |||
      |||
```

73,

--

Mont Pierce

```
+-----+
| Ham Call: KM6WT           Internet:  mont@netcom.com      |
|   bands: 80/40/20/2       IBM vnet:  mont@vnet.ibm.com   |
|   modes: cw,ssb,fm        |                               |
|   qth: Fremont, CA        Religion:  Jehovah's Witnesses 9/72 |
+-----+
```

Date: 15 Mar 93 20:58:42 GMT
From: news-mail-gateway@ucsd.edu
Subject: HTX-202 MODS ??????
To: info-hams@ucsd.edu

Running a htx 202 here and I don't have the squelech popping problems you
describe. Does this only occur with SAVE on or not. Perhaps you have a
defective unit (missing a cap for sequencing?).

I can't think of any mods that would appeal to me -- it does everything I want and I can't imagine adding anything to it (and given the surface mount construction I don't think I'd want to do much!).

In article <fred-mckenzie-090393125719@k4dii.ksc.nasa.gov>
fred-mckenzie@ksc.nasa.gov (Fred McKenzie) writes:

>Let's take another look at the HTX-202, and see if there are things that
>can be changed besides the frequency range. I realize no one listens when
>I suggest there may be other mods besides "unlocking" the PLL, but that
>doesn't mean improvements can't be made.

>

>How is the audio frequency response? Is there distortion on strong
>signals? Is the internal speaker loud enough? Is there a better speaker
>available that will fit in the case?

The rig is the most immune HT i've used (excluding older 2AT style). It was a major consideration for me as I live on the top of a hill 1/2mile for several major FM and TV TXes serving the Puget Sound. The hill also has its usually collection of commercial, amateur and PS repeaters. I have noticed no spurious signals due to intermod/overload. Every other radio (AM, FM and ham) in my apartment suffers some problems from these transmitters (normally frame sync buzz in AF amps -- DC RXes are the worst!).

The internal speaker is plenty loud enough even for in car use. If you are using it in a noisy car (like I do in a 1967 SAAB 96) I recommend an external speaker close to one's ear. Have you listened to one? Its well above the audio of the "tiny" machines now available.

>How about transmit audio?

I have gotten good reports -- good deviation, loud and clear. I have yet to monitor it myself.

>How stable is the master oscillator?

Good enough for FM but I've not taken it to temperature extremes yet.

>If the battery pack goes bad, does anyone sell refill kits?

The batteries are the same as the ICOM AT series (BP series packs). Both packs, replacement inserts and drop in chargers are available from many nicad resellers. Does anyone do BP style packs with metal rails battery packs like come with the original 202?.

The htx202 is a well designed piece of equipment (an order of magnitude away from the usual RatShack trash). It is better built than the

htx100 10m rig. It is well thought out, not excessive in features, but they picked the right feature set to the average user. Splitting the memories into calling channel (it is easy to flick between the calling channel and vfo or a memory channel with the press of one button), 3 priority memories, and 12 regular memories is a good idea. This matched my usage closely (I listen to three repeaters on a regular basis and others occasionally).

I returned the first rig I got (scratches on the back and a missing screw pointed to someone having taken a look inside and the charger failed on first usage). This rig reset to 144.200. The second rig I got was fresh out of the box. Reset of power up to 146.000 -- so I presume Radio Shack updated the ROMs to get it to come up at a more reasonable frequency. For american use 146.52 would be nice (but this would be out of band in other parts of the world -- is it sold in UK, Australia, NZ, Europe?). Worked fine for me. A ICOM speaker mike picked up at a hamfest works fine. I just need to get a 1/4 antenna for it and I'll be happy portable.

If only they'd bring out a NARROW front end DUAL band rig. I can dream can't I!!

Date: 16 Mar 1993 21:24:35 GMT
From: usc!howland.reston.ans.net!noc.near.net!news.bbn.com!bbn.com!
levin@network.UCSD.EDU
Subject: Newbie question: What is iambic?
To: info-hams@ucsd.edu

a-kevinp@microsoft.COM (Kevin Purcell, Rho) writes:
|To send a C: squeeze both paddles together; make sure the dah paddle
|(normally the thumb/left hand paddle) closes first; hold till you get
|the letter out.

|didahdidah.

Err, Kevin: Ahem. How long since you took your code test?

|Most keyers also have a meomory that will remeber that you hit one
|paddle whilst holding the other down and insert that element when the
|current element ends.

Dash memory and dot memory (Morse machine terminology anyhow). This is variable by keyer, as well as whether it sends an extra dit or dah after you let go. Some keyers let you decide which of these features you want to enable; others (like those built into some trancivers) don't. So you need to spend some time practicing.

/JBL

=

```
Nets: levin@bbn.com | "There were sweetheart roses on Yancey Wilmerding's
POTS: (617)873-3463 | bureau that morning. Wide-eyed and distraught, she
      N1MNF/AA      | stood with all her faculties rooted to the floor."
                   | -- S. J. Perelman
```

Date: Tue, 16 Mar 1993 15:20:05 GMT
From: pa.dec.com!decabo.abo.dec.com!anarky.enet.dec.com!brewer@decwrl.dec.com
Subject: Repair my HW-101??
To: info-hams@ucsd.edu

In article <1993Mar15.161732.19654@linus.mitre.org>, m14494@mwvm.mitre.org (Mike White) writes...

>ûMark Bagdy writes:

>> I would like to know your opinion of fixing up my old HW-101.

>

>Speaking as a former HW-101 owner, here's the Official

>repair technique for all "Hot Water" gear:

>

[...driving over it]

>I jest of course; I have fond memories of all my Heathkits,

>including the HW-101. If you can fix it up cheap, it's an

>ok rig that will get you on the air. If the repair costs much more

>that about \$50-\$60 or so in parts and bother, I think it's probably not

>worth it. Clean HW-101s in good working order go for

>not much more than \$100 at hamfests. Good luck.

>

>Mike, N4PDY

The HW101 is a fine rig.... I wouldnt blow off repairing
one because it lacks the hi-zoot dual microprocessor,
winky-blinky lites, multi-memory features of the
newest KenIcoSu radios.

The real beauty of the Heath gear is that it CAN
be fixed by mere mortals! Grab the manual and
dig in!

:~)

/john

```
-----
| John Brewer | Internet: brewer@anarky.enet.dec.com |
| wb5oau      | Packet   | wb5oau@wb2ars      |
-----
```


Date: Tue, 16 Mar 1993 18:06:38 GMT
From: usc!sdd.hp.com!hpscit.sc.hp.com!hplextra!hpcss01!hpwala!
joes@network.UCSD.EDU
Subject: Repeater in simplex band ??
To: info-hams@ucsd.edu

I recently began hearing a repeater in the simplex section of the 2M band (144.560 MHz). It is clearly a repeater, with autopatch, and I question the legality of this. 144.560 is the output frequency; I haven't found the input, and may not if the signals are too weak.

Does anyone have an opinion on this? Is it legal to use a simplex frequency as a repeater output? The person does identify his call, but he can't hear me since I don't know the input frequency.

[illegible]

Joe Smulowicz
Hewlett Packard
Patient Care Monitoring Systems
175 Wyman Street
Waltham, Massachusetts 02254

(joes@hpwarbz.wal.hp.com)

TEL 617-290-3760
FAX 617-290-3790

[illegible]

Date: 16 Mar 93 21:01:44 GMT
From: mnemosyne.cs.du.edu!nyx!jmaynard@uunet.uu.net
Subject: Repeater in simplex band ??
To: info-hams@ucsd.edu

In article <4273@hpwala.wal.hp.com> joes@hpwarbz.wal.hp.com writes:
>I recently began hearing a repeater in the simplex section of the 2M band
>(144.560 MHz).

The repeater bands on 2 are from 144.5-145.5 and 146-148. This machine may not be operating in accordance with band plans for your area (I don't know of any plans for the 144.5-145.5 segment that have outputs on the low side), but it's in the repeater band. I'd try 145.16 as the input (+600 KHz), and then punt. You could always look up his call in the callbook, and then call him up...

Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jmaynard@oac.hsc.uth.tmc.edu | adequately be explained by stupidity.
You won't see this on TV: (video of Mount Carmel compound)

"This is David Koresh, of Waco, Texas. He cannot be seen."

Date: 16 Mar 93 23:20:43 GMT
From: news-mail-gateway@ucsd.edu
Subject: Washing Radios?
To: info-hams@ucsd.edu

>
>This is a very interesting question, and I think many folks on the list would
>like to hear techniques used by those with experience in restoration. Why
>not make your replies to this query to the mailing list?
>
>A case in point: I have heard of people running radios in the dishwasher, for
>instance, to clean off accumulations of "gunk". Somehow, I have never gotten
>up the courage to actually DO it! Is this for real or not?
>
>73,
>
>Jim Morgan (WX4D/3)
>jvm@aluxpo.att.com
>

I say:

In the past there have been numerous postings from experienced restorers which described washing the equipment with soap and water (dishwasher or manual). I have not yet had a chance to try this on a piece of electronic gear, although I did do this recently with my wife's upright vacuum cleaner. The unit was FULL of dirt in the motor housing, and under tap water it released fistfuls of dirt, hair, fibers. I held it under running water for a good 15 minutes until the water started coming out clear! No soap was used. I let the unit dry for several days, then reassembled and did the smoke test. It ran like a champ, didn't overheat as before, and gave good suction. I felt great, gave kudos to those guys who turned me on to this idea, and the XYL was off my back! Easy!

I spoke too soon, however. Within 30 min to 1 hour of operation, the vac started crapping out - would stop and act dead - like an open connection, or a tripped overload device (don't know if the motor has one or not, just speculation). After letting it sit for some undetermined period (the next time vac was needed) it would run again for another period and repeat the problem.

I have not done ANY troubleshooting, so there is no positive evidence linking this behavior to the washing. Perhaps the washing dissolved some glue on some piece of insulation, or soaked and swelled a piece of paper insulation,

or similar such damage so as to cause the motor to overheat, or trip.

Perhaps this would have happened regardless of the water washing.

I know that there are devotees to this technique, but I would venture to say that one should think carefully before exposing any equipment or components to water or any other solvent or agent (remember that water is the most universal solvent there is) in which that equipment was not specifically designed to be operated, or with which it was not specifically designed to be cleaned. Most electronic equipment was designed to be operated in air only (clean, dry air at that - not the humid, corrosive atmosphere we all experience), and to be bathed in the same. I know that's boring, but that's the case.

Contrary to common knowledge, water (especially pure water) is an extremely aggressive chemical agent. Often, the fastest way to ruin a bare metallic surface, or any other for that matter where the electrical properties of that surface are the ones of interest (like contacts and elements in pots, switches, relays, etc.) is to etch the surface with some cleaner (etch here being defined as the removal of some desired surface layer or passivation) and then to deposit a new undesired layer of organic and/or inorganic residue, with electrical properties all its own.

That new layer of residue, or the smear from something else nearby that was washed away, might oxidize or corrode or attract airborne dust over a long period of time and cause premature failure of the component.

This is what happens when lighter oil (or worse, WD-40) is used in a bearing or part that needs heavier grease - it cleans it up nicely but then attracts dirt causing earlier failure, perhaps because you washed away some lubricant from some inner critical surface that will not be relubed when you spray in the wrong lubricant from the outside. And this is just from a mechanical perspective.

This is why I suggested recently beginning a thread to enlighten the readership on materials topics - someone asked recently about Rat Shack tuner spray, and if anyone had a better one to recommend. That's fine, but what we really need is to learn how to read the labels, and so if someone really knows the specific solvents and carriers in use, then that knowledge may be useful the next time he wants to choose between RS, GC, or whatever other brands might be out there. They may all be similar and that's useful to know too. Many (most) solvents have been banned from sale for environmental reasons. Anyone know which ones they are, and which ones are still for sale?

The presence of water is scrupulously avoided at many critical stages of electronic and device manufacturing. It has already been suggested to use other solvents very carefully, especially with old radios containing paints, finishes, and glues from bygone eras which may wash away if

cleaned without forethought. Think before you wash that old rig!

I close by saying that I have NEVER tried this, while others have.
This was a purely theoretical discussion. Disagreements are welcome.

73, Kalman WD6CZI <klaudon@pica.army.mil>

Date: 16 MAR 93 13:12:51

From: pa.dec.com!e2big.mko.dec.com!nntpd.lkg.dec.com!ryn.mro4.dec.com!
cimfie.enet.dec.com!taber@decwrl.dec.com

To: info-hams@ucsd.edu

References <1993Mar15.142552.26594@bnr.ca>, <1993Mar15.161155.399@bnr.ca>,
<1993Mar16.015844.25131@odin.corp.sgi.com>om

Subject : Re: A few QRP related questions.

>

>but he did bring up an interesting question. is the ARRL allowing
>Field Day on the WARC bands? i thought we had an agreement to stay
>off them critters for ALL major contests. am i ignorant and/or
>misinformed?

>

I won't touch the question, but Field Day is not a contest. It's an
emergency communications drill. So it's just as important to get
experience setting up for the WARC bands as for any other. Field Day
also operates the satellites, which are likewise contest-free. Viewed as
emergency practice, you can see why all bands/modes are used.

>>>==>PStJTT

Date: (null)

From: (null)

Things and such deleted ...

>

> For shame Chuck, Field Day isn't a *contest*, it's an emergency
> preparedness drill. At least that's the ARRL official line, so
> it operates all bands, all modes.

>

Gee, I was expecting MULTIPLE smileys on this one, Gary! :-)

I always wondered why, if it's not a contest, why do they keep scores? Then, they publish the scores from highest to lowest.

Oh yeah, almost forgot -- :-) :-) :-)

Whew, that's a relief!

--

Bob Schreibmaier K2PH | UUCP: ...!att!mtdcr!k2ph
AT&T Bell Laboratories | Internet: k2ph@mtdcr.att.com
Middletown, N.J. 07748 | ICBM: 40o21'N, 74o8'W

Date: Tue, 16 Mar 1993 18:59:48 GMT
From: usc!cs.utexas.edu!tamsun.tamu.edu!news.utdallas.edu!corpgate!crchh327!
crchh80c!larryt@network.UCSD.EDU
To: info-hams@ucsd.edu

References <1nr1fo\$652@bigboote.WPI.EDU>, <C3xz1A.D8D@news.rich.bnr.ca>,
<1993Mar15.192928.3782@rsg1.er.usgs.gov>yt
Reply-To : larryt@bnr.ca
Subject : Re: CTIA REPLY COMMENTS TO FCC DOCKET 93-01 (scanner ban)

Yes, I guess you are right, but I don't hold much hope for changing anything now that it is in the law. I had overlooked that.

--

+-----+
| LARRY W. TRUESDALE INTERNET ADDRESS: larryt@bnr.ca |
| | |
| Work: (214) 684-4790 BUSINESS ADDRESS: RESIDENTIAL ADDRESS: |
| Home: (214) 442-7074 Bell-Northern Research Mr. Larry Truesdale |
| Pager: (817) 667-6846 Post Office Box 833871 Post Office Box 1574 |
| Fax: (214) 684-3711 Richardson, TX 75083-3871 Wylie, TX 75098-1574 |
| Data: (214) 442-1035 Mail Station D0112 |
| ESN: (444) 684-4790 |
+-----+

Date: Tue, 16 Mar 1993 20:55:34 GMT
From: sun-barr!cs.utexas.edu!sdd.hp.com!hpscit.sc.hp.com!hpuerca.atl.hp.com!
edh@ames.arpa
To: info-hams@ucsd.edu

References <1993Mar11.164602.23830@netcom.com>,

<930311.194505.5p8.rusnews.w165w@garlic.sbs.com>,
<1993Mar12.160813.24809@mixcom.com>p
Subject : Re: Kenwood TH78A vs. Alinco DJ580

Just my \$.02:

My XYL and I both own DJ-580's and love them. Jay did a great job on the manual (his final version is the one to get). Nothing will help you if you don't memorize what the keypad label abbreviations mean. After that, it is a piece of cake (for instance I like to switch scan modes according to my current needs i.e. am I waiting for someone and just checking out the action (TimeScan) or do I want to hear all of a conversation before moving on (BusyScan) etc. - just had to learn the labels and know where the function button is located).

I haven't run my car or truck over mine, but both of us have had drops (public service work gets that way sometimes). And we are real hard on BNC connectors since we switch antennas frequently. I've certainly got no complaints: and several friends tried out one of ours and bought one, so it looks like they sell themselves if someone has a chance to use one.

I try to purchase new equipment on the merits of the product and the price/performance ratio. The Kenwood came close, but the Alinco won for us in this case. IMHO.

Cheers & 73 Ed Humphries N5RCK
Hewlett-Packard NARC Atlanta GA

End of Info-Hams Digest V93 #331
